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REQUEST FOR QUALIFICATIONS

ENGINEERING DESIGN AND CONSTRUCTION SERVICES
RUBY DAM
MADISON COUNTY, MONTANA

INTRODUCTION

The Montana Department of Natural Resources and Conservation (DNRC) is seeking engineering firms qualified to perform engineering design and construction management for rehabilitation of Ruby Dam. Ruby Dam is located in Madison County, Montana. The work will consist of reviewing the feasibility study completed by HKM, Inc. for technical adequacy and preferred design components, preparation of the final design and construction documents, and, providing construction management services. This work is being conducted to bring the dam into compliance with the State of Montana Dam Safety Act. DNRC is soliciting and will evaluate Statements of Qualifications (SOQs) from engineering firms desiring to be considered for this project. **This is not a Request for Proposals**.

BACKGROUND

The Ruby Dam and Reservoir is located on the Ruby River, in Madison County approximately 7 miles south of Alder. The dam, built in 1938, is owned and managed by the DNRC and operated by the Ruby River Water Users Association. The structure consists of an earthen zoned dam, 111 feet high, 846 feet long with a reinforced concrete chute spillway. The outlet works consist of a 90" horseshoe-shaped outlet that is mostly tunneled, a 96-inch diameter concrete dry tower, a 72-inch diameter slide gate (emergency gate) upstream from a 72-inch butterfly valve (operating gate). Storage at full pool (top of the existing flashboards) is 37,642 acre-feet. Two privately owned canals deliver water to purchasers: The West Bench Canal, which is 12 miles long with an 85 cfs capacity; and the Vigilante Canal, which is 26 miles long with a 115 cfs capacity. 149 water users have 219 contracts for 38,845 acre/feet of water.

The spillway condition has been deteriorating for many years. An inspection conducted by the Army Corps of Engineers (COE) in 1981 found the spillway capacity inadequate, with the spillway showing serious deterioration. For this reason, the Corps classified the dam as unsafe according to the standards set forth under the National Dam Inspection Act, Public Law 92-367. The spillway has since deteriorated to the point that replacement of the structure is needed.

The proposed plan calls for the following work.

- Construction of a new spillway that will meet or exceed all current state dam safety requirements.
- Rehabilitation of the low level outlet works to increase flows that can be safely discharged in order to meet reservoir evacuation criteria. The existing low level outlet control gate will be removed and the downstream portion of the outlet works conduit will be slip lined with a steel penstock. A new control gate will also be installed on the downstream end of the penstock at the dam toe. A new outlet terminal structure will also be constructed to replace the existing deteriorating structure. Final design will include provisions for possible addition of a small-hydropower facility at a later date (1 to 3 MW peak).
- Increase the reservoir's storage. Sedimentation has reduced the storage capacity of the reservoir by approximately 2,000 acre-feet over the past 70 years. In order to enhance and reestablish the original storage capacity of the reservoir, the proposed action calls for the spillway crest to be raised 7.0 feet above the existing flashboards, and the dam crest raised 4 feet. This will increase the existing capacity of the reservoir from 37,642 (existing top of flashboards) to 45,115 acre-feet. This will provide an additional 7,473 acre-feet of storage (recovers the 39,850 a/f original water right plus 5,265 acre-feet), of which 2,600 acre feet is proposed to become an established minimum pool for the reservoir.
- Improve access to the dam's toe and crest. A new access road, including bridge across the Ruby River, will be constructed to the toe of the dam. A new pedestrian bridge across the spillway will also be constructed to provide access to the crest of the dam.

Approximately 30,000 cubic yards of material will be used in the cut and fill operation for the installation of the new spillway, outlet terminal structure and the dam crest raise. Construction would disturb approximately 20 acres.

The overriding goal of this project is to improve the efficiency, safety and functionality of Ruby Dam for its continued use for agricultural irrigation and recreation. Public benefits from this project include providing reservoir water for agricultural irrigation, recreation, fisheries and wildlife habitat. Greatly enhanced public safety is an additional and very significant benefit. Small hydropower generation is a possible secondary benefit in the future.

Several documents are included as Attachments with this RFQ to provide additional information to consultant. The information provided includes:

- Fact Sheet
- Inspection Report, 2008
- Feasibility Study, Vol. 1
- Feasibility Study, Vol. 2
- Operations and Maintenance Manual
- Draft Environmental Assessment

SCOPE OF WORK

DNRC is requesting professional engineering services to assist in the rehabilitation work for Ruby Dam. Statements of Qualifications are being solicited from firms capable of performing the following work.

1. Review the feasibility study for completeness and provide concurrence to the DNRC on the preferred rehabilitation plan. If there is non-concurrence, provide alternative(s) for incorporation into the preferred rehabilitation plan.
2. Complete a geotechnical study to further characterize the embankment materials and embankment stability.
3. Prepare a final design. Major design components to include rehabilitation of the low level outlet works, rehabilitation of the spillway, and dam raise. Additional design components include, but not limited to, a new access road with bridge across the Ruby River, new pedestrian bridge access to the dam crest, rehabilitation of the toe drain outlet, adding slope protection along the reservoir's shoreline at critical locations (e.g. highway slope embankments), and future addition of a small hydropower plant.
4. Prepare contract documents (plans and specifications) for completing the rehabilitation.
5. Provide consultant services for bidding, construction inspection and contract administration.

The total project budget for engineering services and construction to complete this work is $12 to $14 million.

SCHEDULE AND DEADLINE

DNRC intends to select and contract with consultant by July 2009, pending funding approval. The preliminary project schedule is for design and construction documents to be completed by July 2010 with project construction taking placed between September 2010 and December 2011. A more detailed preliminary schedule is presented in Figure 2, Preferred Rehabilitation Option, Part 1 of the Feasibility Study.

QUALIFICATIONS

Firms desiring to be considered for the work should deliver to DNRC **five bound copies** of the information requested below not later than **4:00 p.m., local time, Wednesday, March 25, 2009**. The SOQs must be in DNRC's possession by this time, **not** postmarked, and must include the following information.

Provide qualifications following OMB Standard Form 330, Part 1 and 2 format (http://contacts.gsa.gov/webforms.nsf/0/21DBF5BF7E860FC185256E13005C6AA6/$file/sf330.doc). Please note the following specific requests in regards to certain portions of the information to be provided.

> *Part 1 – Section C. Proposed Team*. Indicate the location of the office(s) from which the work would be performed. If work would be shared between main and branch

offices at different locations, indicate office locations and what work would be directed or performed from each office. Where a main office and branch office(s) would be involved, include the appropriate information on Standard Form 330, for each.

Part 1 – Section D. Organization Chart. Show proposed relationships among key personnel, support staff, and any subcontractors who would participate, identifying which aspects of work each person would perform. Work assignments should correspond to work described in the "Scope of Work" section plus additional items identified by the Consultant.

Part 1 – Section E. Resumes. Be sure to include resumes for each employee shown on the organization chart who will perform the work and the supervisory personnel who will be responsible for the work proposed. Include education, professional or technical certifications or licenses, and work history relevant to each person's job assignment on this project. Individual resumes must be limited to no more than four pages each.

Part 1 – Section F. Example Projects. For each of the following components, provide the number of example projects. Projects similar in size and scope to Ruby and completed within the last 10 years are preferred.

- Low Level Outlet Works – 10 projects, maximum
- Spillways – 10 projects, maximum
- Dam Raises – 7 projects, maximum
- Bridges – 5 projects, maximum
- Embankment Dam Geotechnical Investigations – 5 projects, maximum
- Embankment Dam Seepage Control – 5 projects, maximum
- Small Hydropower – 5 projects, maximum
- Erosion Protection – 5 projects, maximum

A single example project may contain more than one of these components. Provide a matrix identifying for each example project which components apply.

Part 1 – Section H. Specialized Experience. Describe specialized experience as it relates to performing a feasibility study, design and construction for rehabilitation of earthen dams, including spillways, outlet works, dam raises, drainage, and bridges. At a minimum, the discussion should demonstrate the experience and capabilities necessary to complete the tasks identified in the "Scope of Work" section. Please limit this to no more than 10 pages.

Part 1 – Section H. Workloads. Provide information regarding current and projected workloads of the firm or firms involved.

The DNRC may request additional information, clarification, or references at its discretion.

EVALUATION CRITERIA

DNRC will select firm(s) most qualified to perform this work based upon the submitted SOQ information in accordance with Montana Code Annotated (MCA) 18-8. DNRC will use the following evaluation criteria (listed with scoring points) to rate firms responding to this request. The criteria will be applied in evaluating the project team identified to work on the project.

1. Overall team experience as it relates to feasibility studies and the design and rehabilitation of earth dams, in particular as it relates to the Scope of Work. (30 points)
2. Personnel experience with design, construction and rehabilitation of low level outlet works, in particular as it relates to the alternatives evaluated in the Feasibility Study. (15 points)
3. Personnel experience with design, construction and rehabilitation of spillways, in particular as it relates to the alternatives evaluated in the Feasibility Study. (15 points)
4. Personnel experience with geotechnical investigation and study of earth dams, dam raises, and seepage issues. (10 points)
5. Personnel experience with design and construction of small hydropower projects (5 points)
6. Personnel experience with inspection/quality control services for similar construction projects. (10 points)
7. Capacity to meet time and project budget requirements. The firm must show that they have the resources to complete all phases in a timely and efficient manner. Include a description of present and projected workloads. (10 points)
8. Past experience with the DNRC and/or other public agencies. (5 points)
9. Location of the firm and personnel to complete the work. (5 points)

GENERAL

The work on this project must be done under the direction of a professional engineer licensed in the State of Montana with specific experience in earthen dam design, rehabilitation and construction.

THIS IS NOT A REQUEST FOR PROPOSALS. Proposals will be requested from those firms selected based on evaluation of the SOQs.

SELECTION PROCESS

All complete SOQs received will be reviewed and evaluated by a team of State Water Projects Bureau personnel. Based on DNRC's rating of firms responding to this request, DNRC may request proposals from one or more firms.

DNRC reserves the right to modify the Scope of Work listed in this RFQ based upon the availability of DNRC staff to perform Project tasks.

QUESTIONS AND SUBMITTALS

Please address questions and Statements of Qualifications to:

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Geotechnical Engineer
State Water Projects Bureau
Department of Natural Resources and Conservation
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Helena, Montana 59620-1601

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Email: bgrant@mt.gov

RECEIPT OF STATEMENT OF QUALIFICATIONS AND PUBLIC INSPECTION

Public Information
All information received in response to this Request for Qualifications (RFQ), including copyrighted material, is deemed public information and will be made available for public viewing and copying shortly after the time for receipt of SOQs has passed with the following four exceptions: (1) bona fide trade secrets meeting the requirements of the Uniform Trade Secrets Act, Title 30, chapter 14, part 4, MCA, that have been properly marked, separated, and documented; (2) matters involving individual safety as determined by the State; (3) any company financial information requested by the State to determine vendor responsibility, unless prior written consent has been given by the offeror as set out in section 18-4-308, MCA; and (4) other constitutional protections. See Mont. Code Ann. § 18-4-304.

Procurement Officer Review of SOQs
Upon opening the SOQs received in response to this RFQ, the procurement officer in charge of the solicitation will review the SOQs and separate out any information that meets the referenced exceptions in **Public Information Section** above, providing the following conditions have been met:

- Confidential information is clearly marked and separated from the rest of the SOQ.
- The SOQ does not contain confidential material in the cost or price section.

An affidavit from an offeror's legal counsel attesting to and explaining the validity of the trade secret claim as set out in Title 30, chapter 14, part 4, MCA, is attached to each SOQ containing trade secrets. Counsel must use the State of Montana "Affidavit for Trade Secret Confidentiality" form (http://gsd.mt.gov/docs/Tradesecretaffidavit.doc) in requesting the trade secret claim.
Information separated out under this process will be available for review only by the procurement officer, the evaluation committee members, and limited other designees. Offerors must be prepared to pay all legal costs and fees associated with defending a claim for confidentiality in the event of a "right to know" (open records) request from another party.